Assignment -2

Internet of Things

Assignment Date	27September 2022
Student Name	G.Muthulakshmi
Student Roll Number	912619104012
Maximum Marks	2 Marks

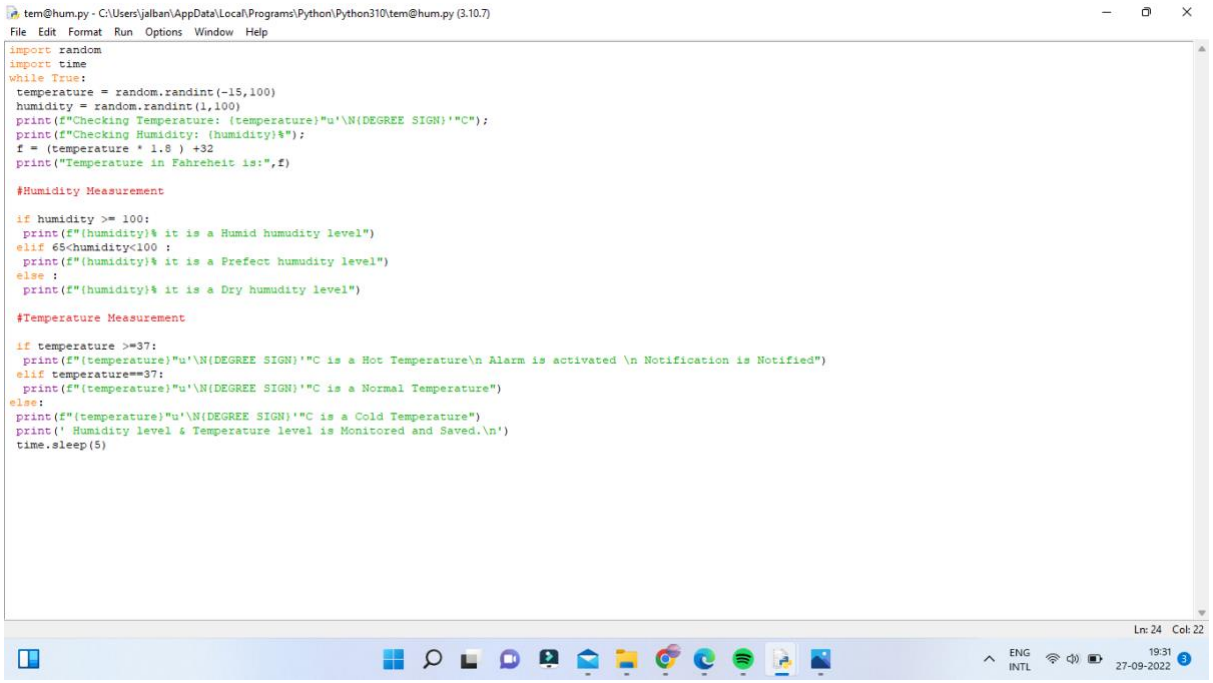
Question-1:

Build a python code, assume you get temperature and humidity values (generated with random function to a variable) and write a condition to continuously detect alarm in case of high temperature.

Solution:

```
 import random
import time
while True:
 temperature = random.randint(-15,100)
 humidity = random.randint(1,100)
 print(f"Checking Temperature: {temperature}"u'\N{DEGREE SIGN}'"C");
 print(f"Checking Humidity: {humidity}%");
 f = (temperature * 1.8 ) +32
 print("Temperature in Fahreheit is:",f)

 #Humidity Measurement

 if humidity >= 100:
  print(f"{humidity}% it is a Humid humudity level")
 elif 65<humidity<100 :
  print(f"{humidity}% it is a Prefect humudity level")
 else :
  print(f"{humidity}% it is a Dry humudity level")

 #Temperature Measurement

 if temperature >=37:
  print(f"{temperature}"u'\N{DEGREE SIGN}'"C is a Hot Temperature\n Alarm is activated \n
Notification is Notified")
 elif temperature==37:
  print(f"{temperature}"u'\N{DEGREE SIGN}'"C is a Normal Temperature")
else:
 print(f"{temperature}"u'\N{DEGREE SIGN}'"C is a Cold Temperature")
 print(' Humidity level & Temperature level is Monitored and Saved.\n')
 time.sleep(5)
```

Output:


tem@hum.py - C:\Users\jalban\AppData\Local\Programs\Python\Python310\tem@hum.py (3.10.7)
File Edit Format Run Options Window Help
import random
import time
while True:
temperature = random.randint(-15,100)
humidity = random.randint(1,100)
print(f"Checking Temperature: {temperature}"u'\N{DEGREE SIGN}'"C");
print(f"Checking Humidity: {humidity}%");
f = (temperature * 1.8) +32
print("Temperature in Fahreheit is:",f)
#Humidity Measurement
if humidity >= 100:
print(f"{humidity}% it is a Humid humudity level")
elif 65<humidity<100 :
print(f"{humidity}% it is a Prefect humudity level")
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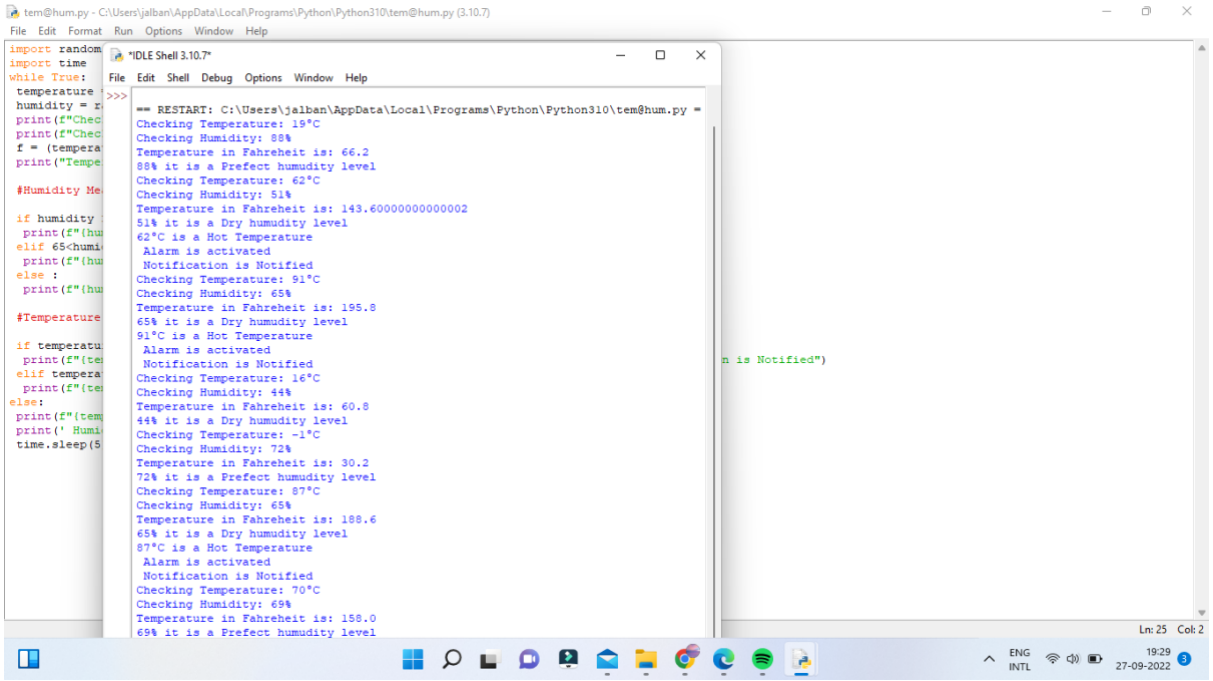
print(f"{humidity}% it is a Dry humudity level")
#Temperature Measurement
if temperature >=37:
print(f"{temperature}"u'\N{DEGREE SIGN}'"C is a Hot Temperature\n Alarm is activated \n Notification is Notified")
elif temperature==37:
print(f"{temperature}"u'\N{DEGREE SIGN}'"C is a Normal Temperature")
else:
print(f"{temperature}"u'\N{DEGREE SIGN}'"C is a Cold Temperature")
print(' Humidity level & Temperature level is Monitored and Saved.\n')
time.sleep(5)
Ln: 24 Col: 22
ENG INTL
19:31
27-09-2022


tem@hum.py - C:\Users\jalban\AppData\Local\Programs\Python\Python310\tem@hum.py (3.10.7)
File Edit Format Run Options Window Help
IDLE Shell 3.10.7
File Edit Shell Debug Options Window Help
>>>
== RESTART: C:\Users\jalban\AppData\Local\Programs\Python\Python310\tem@hum.py =
Checking Temperature: 19°C
Checking Humidity: 88%
Temperature in Fahreheit is: 66.2
88% it is a Prefect humudity level
Checking Temperature: 62°C
Checking Humidity: 51%
Temperature in Fahreheit is: 143.60000000000002
51% it is a Dry humudity level
62°C is a Hot Temperature
Alarm is activated
Notification is Notified
Checking Temperature: 91°C
Checking Humidity: 65%
Temperature in Fahreheit is: 195.8
65% it is a Dry humudity level
91°C is a Hot Temperature
Alarm is activated
Notification is Notified
Checking Temperature: 16°C
Checking Humidity: 44%
Temperature in Fahreheit is: 60.8
44% it is a Dry humudity level
Checking Temperature: -1°C
Checking Humidity: 72%
Temperature in Fahreheit is: 30.2
72% it is a Prefect humudity level
Checking Temperature: 87°C
Checking Humidity: 65%
Temperature in Fahreheit is: 188.6
65% it is a Dry humudity level
87°C is a Hot Temperature
Alarm is activated
Notification is Notified
Checking Temperature: 70°C
Checking Humidity: 69%
Temperature in Fahreheit is: 158.0
69% it is a Prefect humudity level
Ln: 25 Col: 2
ENG INTL
19:29
27-09-2022